



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/432,618	11/03/1999	FREDERICK J. ROEBER	99-401	1298

26161 7590 02/03/2003

FISH & RICHARDSON PC
225 FRANKLIN ST
BOSTON, MA 02110

EXAMINER

KENDALL, CHUCK O

ART UNIT	PAPER NUMBER
----------	--------------

2122

DATE MAILED: 02/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/432,618

Applicant(s)

ROEBER ET AL.

Examiner

Chuck O Kendall

Art Unit

2122

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2122

DETAILED ACTION

Amendment

pm

This action is in response to the ~~application~~ *amendment* filed 11/13/02

Claims 1-40 have been examined.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 16 -19, 28 -31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen et al. USPN 5,465,359 hereinafter Allen in view of Kaler et al. USPN 6,467,052 B1.

Regarding claims 1, 16 and 28, Allen discloses a system for monitoring the operation of computer programs (22:25-30 see system monitor), by collecting related events relating to a plurality of target programs, each program running on a respective target processor, and each target processor being located on a separate system bus, the system comprising:

a plurality of event collection cards, (interpreted as 204, from figure 16), each receiving events (208), from a respective one of the plurality of target programs, wherein each of the plurality of event collection cards and the respective one of the target programs is installed on the same system bus, and wherein each event collection card includes:

- a time stamp clock for providing a time stamp when each event is received (fig1, 24);
- an event memory for storing the received events (fig1, 20a,b,c, local cache);
- a sync interface unit for receiving a sync signal (6:28-40, item # 24, also see 56:51-58);

Art Unit: 2122

a collection control unit for time stamping the collected events according to the time stamp clock synchronized to the sync signal, and for storing the time stamped events in the event memory (6:28-40, item # 24). Allen doesn't explicitly disclose a sync control unit and monitoring the operation of computer programs. However Kaler does disclose this feature in a similar configuration (Kaler, 36:35-45) Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Allen with Kaler to implement the instant claimed invention because synchronizing clock times in a multiprocessor environment is an old practice, and makes event collection and monitoring more efficient.

Claims 5-15, 20-27 are rejected under 35 U.S.C. 103(a) are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen et al. USPN 5,465,359 hereinafter Allen in view of Kaler et al. USPN 6,467,052 B1 as applied in claim 1 and further in view of Nouri et al USPN 6,07,255.

Regarding claim 5 Allen as modified discloses all the claimed limitations as applied in claim 1 above, Allen doesn't explicitly disclose a master card and at least one other event collection card including a slave card that synchronizes the time stamp clock of the slave card to the time stamp clock of the master card. However, Nouri does disclose this feature (10:5-10, see synchronizing transfers and clock). Therefore, one of ordinary skill in the art at the time the invention was made would have combine Allen as modified with Nouri to implement the instant claimed invention because, synchronizing the time during event logging makes it more efficient.

Regarding claim 6 the system of claim 5, wherein:

the collection control unit receives a start request requesting that the collection control unit begin collecting events and [Nouri, 13:25-35, also see Allen, 7:5-8];

the sync control unit determines, when the collection control unit receives the start signal, whether the event collection card is a master card or a slave card, and wherein the sync control unit transmits a sync signal to the slave card only when the event collection card is a master card [Nouri, 11:23-30].

Regarding claim 7 the system of claim 1, Nouri also disclose as applied in claim 5, the plurality of event collection cards are daisy-chain connected to one another [Nouri, 11:35-40, see point to point serial link, see fig2].

Regarding claim 8 the system of claim 1, wherein the sync interface unit receives the sync signal from a time-based global positioning system [10:64-11:1-15, see Global network address].

Regarding claims 9 & 21 the system of claim 1, wherein the sync interface unit receives the sync signal from an atomic clock [10:64-11:1-15, see Global network address, interprets atomic clock to be the clock signal].

Regarding claim 12 the system of claim 1, wherein:

the collection control unit initializes the corresponding target processor prior to collecting events by assigning an address range to the target processor, wherein the target processor uses the assigned addresses when sending events to the event collection card [9:57-61].

Regarding claim 13 the system of claim 12, wherein:

the collection control unit determines an identification value by decoding the address to which the respective target processor has sent the event, wherein the identification value corresponds to the target program corresponding to the respective target processor [Allen, 7:37-44].

Regarding claim 14 the system of claim 13, wherein:

the collection control unit time stamps the identification value and stores the time stamped identification value in the event memory [Allen, 8:57-64, see id and time of day].

Regarding claim 15 the system of claim 1, wherein the collection control unit updates a memory count for each time stamped event stored in the event memory, wherein the event collection card sends the collected events to a host computer for processing, wherein the event collection card further includes: [Allen, 8:57-64, see id and time of day]

a processing unit for sending the collected events to the host computer according to the memory count [Allen, 8:15-25];

Regarding claim 20 see claim 8 for reasoning.

Regarding claim 24 see claim 12 for reasoning.

Regarding claim 25 see claim 13 for reasoning.

Regarding claim 26 see claim 14 for reasoning.

Art Unit: 2122

Regarding claim 27 see claim 15 for reasoning.

Regarding claim 32 see claim 5 for reasoning.

Regarding claim 33 see claim 6 for reasoning.

Regarding claim 34 see claim 8 for reasoning.

Regarding claim 35 see claim 9 for reasoning.

Regarding claim 38 see claim 12 for reasoning.

Regarding claim 39 see claim 13 for reasoning.

Regarding claim 40 see claim 5 for reasoning.

Claim 10,11, 22-23, 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen et al. USPN 5,465,359 hereinafter Allen in view of Kaler et al. USPN 6,467,052 B1 as applied in claim 1 in view of Nouri et al USPN 6,07,255 and further in view of Hershey et al. USPN 5,375,070 hereinafter Hershey.

Regarding claim 10,22,36 Allen as modified discloses, the system of claim 1, wherein the event collection card sends the collected events to a host computer for processing, and wherein the event collection card further includes:

a bus interface unit, connected to an event collection bus, for receiving events from the target processor over the system bus, wherein the bus interface unit forwards the received events to the collection control unit over the event collection bus [Nouri, 10:64-67];

a processing unit, connected to a local bus, for sending the collected events to the host computer [Nouri, see, master controller for host 10:64-67]; Allen as modified doesn't explicitly disclose a bus isolation unit for allowing the event collection bus and the local bus to operate in parallel. However, Hershey does disclose this feature in a similar configuration [Hershey, 12:30]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Allen as modified with Hershey to implement the instant claimed invention because, Both deal with event logging (analogous prior art) and provide similar solutions to the same problem.

Art Unit: 2122

Regarding claim 11, the system of claim 10, wherein the bus isolation unit allows the processing unit to access the event memory via the local bus and the event collection bus [Nouri, fig2, 160].

Regarding claim 23 see claim 11 for reasoning.

Regarding claim 37 see claim 11 for reasoning.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Correspondence Information

Any inquires concerning this communication or earlier communications from the examiner should be directed to Chuck O. Kendall who may be reached via telephone at (703) 308-6608. The examiner can normally be reached Monday through Friday between 8:00 A.M. and 5:00 P.M. est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Greg Morse* can be reached at (703) 308-4789.

Application/Control Number: 09/432,618

Page 7

Art Unit: 2122

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

For facsimile (fax) send to 703-7467239 official and 703-7467240 draft

Chuck D. Kendall

*Software Engineer Patent Examiner
United States Department of Commerce*